

Machining a Brake Rotor Off Vehicle

Meets NATEF Task: (A5-D-8) Refinish rotor off the vehicle; measure final rotor thickness.
(P-1)

Name _____ Date _____ Time on Task _____

Make/Model/Year _____ VIN _____ Evaluation: 4 3 2 1

- _____ 1. Carefully inspect the rotor for hot spots or damage.
 OK _____ **NOT OK** _____ (requires replacement of the rotor)
- _____ 2. Determine minimum rotor thickness = _____ or machine to thickness = _____
- _____ 3. Measure the rotor thickness = _____. **OK to machine** ____ **NOT OK to machine** ____
- _____ 4. Clean the brake lathe spindle.
- _____ 5. Select the proper tapered cover and/or collets to properly
 secure the rotor to the lathe spindle.
- _____ 6. Install the self-aligning spacer (SAS) and
 tighten the spindle nut.
- _____ 7. Install the silencer band (noise damper).
- _____ 8. Perform a scratch test.
- _____ 9. Stop the lathe and loosen the spindle nut.
- _____ 10. Rotate the rotor 180° (one-half turn) and tighten the spindle nut.
- _____ 11. Perform another scratch cut. If the second scratch cut is in the same location as the
 first scratch cut or extends completely around the rotor, the machining of the rotor can
 continue. (If the second scratch cut is 180 from the first scratch cut, remove the rotor
 and clean the spindle and attaching hardware. Repeat the scratch test.)
- _____ 12. Machine the rotor removing as little material as possible.
- _____ 13. Measure the rotor with a micrometer to be sure rotor thickness is still within limits.
- _____ 14. Use 150 grit aluminum oxide sandpaper on a block of wood for 60 seconds on each
 side or a grinder to provide a smooth non-directional finish.
- _____ 15. Thoroughly clean the rotor friction surface.
- _____ 16. Remove the rotor from the lathe.

